

GE docket 126119-1  
Appl. No. 10/687,407  
Amdt. Dated June 21, 2006  
Reply to Office action of March 21, 2006

Listing of Claims

1. (currently amended) An imager, comprising:  
a plurality of pixels disposed on a substrate in an imaging array pattern comprising rows and columns, each of the pixels comprising a respective photosensor coupled to a respective thin film switching transistor;  
a plurality of scan lines disposed at a first level with respect to the substrate along a first axis of the imaging array pattern, each row of pixels in the imaging array pattern having a respective scan line, each of the respective scan lines being coupled to a respective gate electrode in the thin film switching transistor for each pixel disposed along the respective row of pixels in the imaging array pattern;  
a plurality of data lines disposed at a second level with respect to the substrate along a second axis of the imaging array pattern, each column of pixels in the imaging array pattern having a corresponding data line, each of the respective data lines being coupled to a respective source electrode in the thin film switching transistors for each pixel disposed along the respective column of pixels in the imaging array pattern;  
wherein each pixel comprises a storage capacitor coupled parallel to the photosensor, the storage capacitor comprising a capacitor signal electrode and a capacitor common electrode and a dielectric disposed between the capacitor signal electrode and the capacitor common electrode.
2. (original) The imager of claim 1, wherein the capacitor signal electrode comprises at least two conductive layers, and wherein the conductive layers are coupled together by a source metal via.
3. (original) The imager of claim 1, wherein the gate electrode of the thin film transistor and the capacitor signal electrode comprises a same material.
4. (original) The imager of claim 1, wherein the capacitor common electrode comprises molybdenum, chromium, tantalum, tungsten, aluminum, and titanium.
5. (currently amended) The imager of claim 2 4, wherein the conductive layers form a lower pixel electrode of the photosensor and the source electrode of the thin film switching transistor.

GE docket 126119-1  
Appl. No. 10/687,407  
Amdt. Dated June 21, 2006  
Reply to Office action of March 21, 2006

6. (currently amended) The imager of claim 5, wherein the conductive layer layers and the capacitor signal electrode are coupled by the source metal via.
7. (original) The imager of claim 1, wherein the capacitor signal electrode is larger than the common electrode of the storage capacitor.
8. (currently amended) The imager of claim 2 4, further comprising a hole etched in the capacitor common electrode in a region under the source metal via.
9. (original) The imager of claim 1, further comprising a plurality of vias coupling the capacitor signal electrode to the photosensor.
10. (original) The imager of claim 9, wherein the number of vias is determined based on a required time constant of the photosensor.
11. (original) The imager of claim 9, wherein the distance between the vias is determined based on the required time constant of the photosensor.
12. (original) The imager of claim 9, further comprising a plurality of holes etched in the common electrode in a region under the plurality of vias.
13. (currently amended) The imager of claim 5 4, wherein the photosensor is larger than the conductive layer.
14. (original) The imager of claim 1, wherein the storage capacitor is disposed under the photosensor.
15. (original) The imager of claim 1, wherein the imager is an X-ray imager.